PROJECT TITLE : BIOTECHNOLOGY

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INFLUENCE OF AMMONIA ON NITRATE ASSIMILATION (1)

The trials using semi-synthetic media were completed and the results previously described (2) confirmed. Trials were started using tobacco extracts.

TWO-STAGE NINO DENITRATION (3)

It has often been observed in batch trials that *Candida utilis* NCYC 707 continues to denitrate after the exhaustion of glucose. Moreover cells produced in the continuous process look very healthy and full of reserve materials.

Tests were started to determine whether the yeasts produced in a normal continuous denitration process are still capable to assimilate more nitrate without getting any other nutrients.

A two-stage fermentation system is used for this purpose. In a first fermenter yeasts and denitrated tobacco extract are produced under standard NINO conditions at a dilution rate of 0.2 hr^{-1}.

The product is fed into a second fermenter and mixed with the same quantity of untreated tobacco extract. It was observed in a first trial that the yeasts were capable of assimilating another 800 mg nitrate within 5 hours. Trials to optimize this process continue.

REFERENCES

1. J. Berney - Notebook 800802, 17 - 24.
2. J. Berney Monthly Report, Biotechnology November 1980.
3. J. Berney - Notebook 800802, 25 - 28.

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